

REMARKS

By this amendment, applicants have amended page 5 of the specification to correct the brief description of the drawings and to make the brief description consistent with the drawings and the detailed description. Applicants have also amended the claims to more clearly define their invention. In particular, claim 1 has been amended to include therein the limitations previously recited in claims 2 and 3. Accordingly, claims 2 and 3 have been canceled, as have claims 5, 7, 9, 11, 13, 15, 17 and 19 which previously ultimately depended from claim 2.

In view of the foregoing amendments to page 5 of the specification, reconsideration and withdrawal of the objection to the disclosure are requested.

Claims 1 - 5 stand rejected under 35 USC 102(b) as allegedly being anticipated by United States Patent Number 4,473,111 to Steeb. Applicants traverse this rejection and request reconsideration thereof.

The present invention relates to a heat exchanger for an air compressor, and a screw compressor provided with such a heat exchanger. The heat exchanger comprises a heat exchanger nest having a plurality of low temperature chambers through which cooling water flows and a plurality of high temperature chambers through which compressed air flows. The low temperature chambers and the high temperature chambers are alternately arranged in layers through a partition plate interposed therebetween. A flow direction of the cooling water in the low temperature chambers and a flow direction of the compressed air in the high pressure chambers are substantially orthogonal to one another. Both ends of the layer heat exchanger nest are low temperatures chambers, and the number of high temperature chambers is one less than the number of low temperature chambers.

Such a heat exchanger is advantageous when used in connection with an air compressor for cooling the compressed air.

On the other hand, the patent to Steeb discloses a heat exchanger which is designed to be light weight. Passages of one set are interleaved with those of another set, using spaced parallel heat-transfer plates. In particular, as shown in Figure 1 of this patent and described in the paragraph bridging columns 2 and 3, layers of a first flow system with horizontally extending flow passages 4 are interlaced with layers of a second flow system which has vertically extending flow passages 3. As noted by the Examiner and as shown in Figure 1 of Steeb, five flow spaces 4 and four flow spaces 3 are provided, with the ends of the layered heat exchanger having flow passages 4. However, unlike the present invention, in which the heat exchanger is for an air compressor and cooling water flows through the low temperature chambers while compressed air flows through the high temperature chambers, the heat exchanger of Steeb has first-system passages 4 intended for the passage of cooling air and second system passages 3 intended for the passage of a liquid medium. Thus, the Steeb patent does not disclose the presently claimed invention.

Applicants note the Examiner has cited a number of documents as being pertinent to applicants' disclosure. However, since these documents were not applied in rejecting claims formerly in the application, further discussion of these documents is deemed unnecessary.

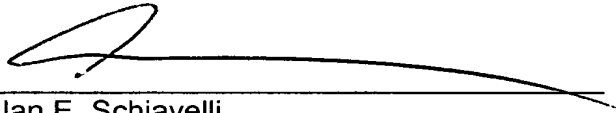
In view of the foregoing amendments and remarks, favorable reconsideration and allowance of all of the claims now in the application are requested.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing

of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 500.40450X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

ANTONELLI, TERRY, STOUT & KRAUS, LLP

A handwritten signature in black ink, consisting of a large, stylized 'A' followed by a long horizontal stroke that tapers to the right.

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